

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of

Revision of the Commission's
Rules to Ensure Compatibility
with Enhanced 911 Emergency
Calling Systems

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) CC Docket No. 94-102
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To: The Commission

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COMMENTS OF APCO, NENA and NASNA

The Association of Public-Safety Communications Officials-International, Inc. ("APCO"), the National Emergency Number Association ("NENA"), and the National Association of Nine One One Administrators ("NASNA"), hereinafter referred to as "Joint Commenters," hereby submit the following comments in response to the Commission's Further Notice of Proposed Rulemaking in the above-captioned proceeding ("Further Notice").

APCO, founded in 1935, is the nation's oldest and largest public safety communications organization. APCO's over 12,000 members are involved in the management and operation of police, fire, emergency medical and other public safety communications facilities throughout the nation, including of Public Safety Answer Points ("PSAPs") charged with answering and responding to 9-1-1 calls. Through its APCO Institute, APCO also develops and implements training programs for 9-1-1 center personnel.

NENA was established in 1982 as a not-for-profit corporation in order to further the goal of "One Nation...One Number." It has 5,000 members in all 50 States, Canada, and other countries. NENA's mission is to foster the technological advancement, availability, and implementation of a universal emergency telephone number system. In carrying out its mission, NENA promotes research, planning, training, and education.

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The National Association of State Nine One One Administrators (NASNA) is an organization of state officials whose purpose includes:

- Promoting information sharing amongst those states with programs dedicated to implementing 9-1-1 emergency telephone systems;
- Assisting other states with resolving issues necessary to accomplish statewide implementation and maintenance;
- Encouraging the establishment of a coordination person within each state or province;
- Identifying and recommending minimum standards for 9-1-1 emergency telephone systems;
- Identifying and recommending appropriate legislation or rules concerning the administration of statewide 9-1-1 emergency telephone system programs and;
- Serving as a knowledge resource for fulfilling the purposes described herein.

The Joint Commenters support the new rules adopted in the Commission's Report and Order, as well as most of the proposals contained in the Further Notice. The Commission is to be commended for its forward thinking approach to these issues and for its willingness to adopt new rules to govern wireless telephone compatibility with Enhanced 9-1-1 systems. As wireless telephones become more prevalent, the need to identify the number and location of 9-1-1 callers will become even more critical for public safety agencies. The public has grown to expect that the local Public Safety Answering Point ("PSAP") will know their location when they call from a wireline telephone. They are increasingly expecting, and deserve, the same level of response from cellular and other wireless telephones.

I. Location Information Technology

In the Report and Order, the Commission adopted a requirement that, within five years, wireless carriers must provide PSAPs with location information within a radius of 125 meters, with a degree of accuracy of 67 percent, provided that the local PSAP is equipped to receive and utilize that information, and further provided that a funding mechanism has been adopted. This requirement was based on the "consensus plan" offered by the Joint Commenters and the Cellular Telecommunications Industry Association ("CTIA"). We supported that standard as a minimum requirement, and as a compromise position to facilitate a consensus with the wireless industry.

The Commission has now proposed that at some specified date following the initial five-year period, wireless providers must offer three dimensional location information within a radius of at least 40 feet, using longitude, latitude, and vertical data, with an accuracy level of 90 percent. We support that proposal as it would greatly enhance the ability of public safety agencies to identify and respond to emergencies reported by wireless telephones. In rural areas, the current 125 meter standard is probably sufficient to locate a 9-1-1 caller, as the situation being reported is likely to be within sight of the emergency responders when they arrive at the scene. In a dense, urban setting, however, 125 meters could easily encompass numerous structures with different street addresses, including high-rise residential and commercial buildings.¹ In contrast, the proposed 40 foot standard would provide sufficient accuracy in most settings. Comments in earlier stages of this proceeding indicated that this higher level of accuracy and may already be attainable from certain vendors(at least for two dimensions), suggesting that it would be a reasonable long-term target for all carriers.

Vertical data, which the Commission proposes be part of the location requirement after the first five-year period, is particularly important in an urban setting, as it would identify the appropriate floor in a multi-story building. Otherwise, emergency responders will need to search every floor, attempting

¹ The proposed 40-foot requirement is similar to our original proposed standard of 10

to find the source of the 9-1-1 call, and wasting valuable minutes, which could be the difference between life and death in many situations. We recognize, however, that vertical data may be difficult to obtain in a cost-effective manner with current technology. Therefore, we would not oppose rules that eliminate the vertical data requirement in certain rural and other geographic areas that have few, if any, structures over two stories in height.

As to the accuracy of the location information, we support an ultimate goal of parity with wireline systems, which currently provide 99% accuracy on location (those errors that do occur are usually due to inaccurate databases, not problems with the technology). While we recognize that 99% accuracy may not be achievable in the foreseeable future, we believe that, at minimum, the Commission should adopt the 90% accuracy level proposed in the Further Notice.

The Commission seeks comment regarding the "minimum latency period" for identifying location of wireless 9-1-1 calls. One of the main reasons for having location information from wireless 9-1-1 callers is to route the 9-1-1 call to the correct PSAP the first time. Even if the caller knows where they are, the call could be delayed because it is sent to the wrong PSAP. Therefore, the location information must be available soon enough for the call to be properly routed the first time as often as possible. This means the location information must be available to be sent along with the call. With wireline systems, the delay is measured in milliseconds. That may not be attainable for wireless systems and, therefore, we would consider supporting maximum delay of one or two seconds, and perhaps a starting point of five seconds until technology matures. The wireless system will also need to make sure the call does not get forwarded to the 9-1-1 system prior to the receipt of the location information, unless location information is not available for the caller. In that case, the cell site location should be sent as the default location information.

Location updates may be required for some 9-1-1 calls, either to keep track of a mobile caller or to address discrepancies between the ALI and the information provided by a caller. Therefore, we believe that the FCC should require that carriers provide PSAPs with the ability to update the location

of callers to 9-1-1. We also believe that the methodology to accomplish manual location updates is best handled by the appropriate standards bodies.

We support the Commission's suggestion that a reporting mechanism be established to keep the Commission and all interested parties informed as to the status of location technology developments and deployment. We urge the Commission to establish a reporting process that involves all of the wireline and wireless industries, as well as public safety. Appropriate industry and public safety organizations would provide annual reports to the Commission outlining the following:

1. Progress made in implementing the Commission's rules.
2. Issues that arise with either wireless or wireline carriers in attempting to implement the Commission's rules.
3. Issues that arise during the implementation of the technology.
4. Recommendations for either further rulemaking or standards setting related to wireless 9-1-1 as required.

While this reporting requirement will impose additional tasks on industry and government, we believe it is important to track the progress being made in complying the Commission's implementation schedule. The deployment of this technology in the wireless industry, the wireline 9-1-1 network, and in public safety systems requires communications between the various segments of the industry. We believe the reporting requirement will provide a mechanism for everyone, including the Commission, to be made aware of the progress being made and the problems being encountered. These reports should be annual, and required for at least ten years from the effective date of the Commission's rules, with the first report due January 1998.

While not specifically addressed in the Commission's Report and Order, we recommend the Commission establish a process by which the location technology vendors are required to have their location accuracy certified. This will provide assurances to both carriers and public safety agencies that

the systems will provide the specified level of accuracy. The testing process could be similar to the process currently in place for the Commission's equipment type acceptance and registration procedures. The manufacturers would be required to submit their systems to an independent third party laboratory for verification of their accuracy claims using a standard test criteria. These test criteria could be established either by the Commission or through the existing standards processes.

II. Access to 911 Service via Multiple Mobile Systems

The Commission notes that, ideally, any wireless handset should have the capability to make a 9-1-1 call to any wireless carrier, without regard to the specific technology or frequency band used by that carrier. We agree, as such a rule would help to ensure that every wireless 9-1-1 call will go through, even where the caller's "home carrier" may have a weak signal. At the present time, the Commission should consider requiring that 9-1-1 callers be able to reach the strongest available signal (i.e., the strongest signal using the same basic technology and frequency range as the caller's home carrier).² However, where carriers operate with different technologies or on different frequency bands (cellular or PCS), expensive multi-mode equipment would be necessary to achieve such "interoperability." Therefore, we do not currently advocate a multi-mode equipment requirement, though we do urge the Commission to monitor carefully technological and marketplace developments (perhaps through the reporting requirements discussed above) and revisit this issue as appropriate.

III. 9-1-1 Availability and Consumer Education

The issue of 9-1-1 availability from non-initialized phones has been difficult for public safety agencies. On one hand, public safety systems have an obligation to accept and respond to any call for emergency help, and are uncomfortable with rules that would effectively block some calls from ever

² Such capability would appear to readily available with current technology. See Comments of Alliance (Sept. 25, 1996), Appendix A (Trott Report)

reaching them. On the other hand, calls from non-initialized phones raise problems for many PSAPs due to the lack of a call-back number. It is often necessary to call-back due to a caller hang-up or to prevent prank calls. With wireless calls, there is also an added problem of calls being "dropped," sometimes without the caller realizing that there is no longer anyone listening at the other end.

Because of these sensitive issues, we believe that each PSAP should have the opportunity to determine its own policy regarding the acceptance of calls from non-initialized phones. If a PSAP is prepared to accept all calls, even those from non-initialized phones, then the carrier must allow those calls to go through without delay. This is the basis of the rule adopted in the Report and Order, which we support. At this time, we do not believe that it is necessary to impose a requirement that all PSAPs accept such calls.

The Commission has expressed concern regarding owners of non-initialized cell phones who may not be aware that some PSAPs will not accept their 9-1-1 calls. We suggest that consumer education may be the key. For example, the FCC could require that all cell phones include a peel off label informing purchasers that, unless they initialize the phone, their calls to 9-1-1 may not go through in some areas.

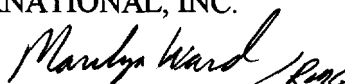
We agree with the Commission that extensive consumer education is necessary. Wireless phones should be required to include consumer information inserts and labels indicating that PSAPs may not be aware of their location (at least until the final phase of the location requirement is fully implemented nationwide). Joint Commenters will also work to educate their own members, who operate PSAPs, as to the FCC's rules. We will also work with the wireless industry to develop effective consumer education programs.

CONCLUSION


Therefore, for the reasons discussed above, we urge that the Commission move forward in its adoption of more specific rules to improve compatibility between wireless telephones and 9-1-1 operations.

Respectfully submitted,

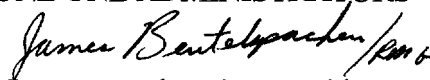
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September 25, 1996